

What Is Claimed Is:

1. A method for controlling a microcontroller (1) in a control unit in a motor vehicle having a processor core (2); at least one read-only memory area (3); and at least one rewritable memory area (5), at least one control program which is intended to be processed by the processor core (2) being stored in the rewritable memory area (5), which method includes at least the steps of

- storing a verification program in a write-once memory area (4) of the rewritable memory area (5);
- storing a service program in the read-only memory area (3);
- calling the service program by the control program at regular intervals;
- calling the verification program by the service program;
- resetting a counter by the service program when called by the control program;
- verifying at least part of the rewritable memory area by the verification program;
- triggering a RESET by the verification program in the event of manipulation of the verified memory area or by the counter in the event of counter overflow.

2. The method as recited in Claim 1, wherein the control program is stored in an internal memory area of the microcontroller (1).

3. The method as recited in Claim 1, wherein the control program is stored in an external memory area outside the microcontroller (1).

4. The method as recited in Claim 1, wherein the verification program is stored in an internal memory area of the microcontroller (1).

5. The method as recited in Claim 4,  
wherein the verification program is stored in a password-protected internal memory area of the microcontroller (1).

6. A control unit for a motor vehicle with a microcontroller (1) having a processor core (2), at least one read-only memory area (3) and at least one rewritable memory area (5), at least one control program which is intended to be processed by the processor core (2) being stored in the rewritable memory area (5),  
wherein

- a write-once memory area (4) of the rewritable memory Area (5) is provided for storing a verification program;
- the read-only memory area (3) is provided for storing a service program;
- the processor core (2) processes the service program after calling by the control program at regular intervals;
- the processor core (2) processes the verification program after calling by the service program;
- a counter is provided which is resettable by the service program when called by the control program;
- at least part of the rewritable memory area (5) is verifiable by the verification program;
- a RESET is triggerable by the verification program in the event of manipulation of the verified memory area or in the event of counter overflow.

7. The control unit as recited in Claim 6,  
wherein the write-once memory area (4) is disposed within the microcontroller (1).

8. The control unit as recited in Claim 6,  
wherein the rewritable memory area (5) is in the form of flash memory.